Managing Aviation Risk in a Combat Zone

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It was a typical night in Afghanistan. The moon was still below the horizon, allowing the night to drape the country in an ominous darkness. The steady southern winds did little to lessen the effects of the stifling heat and held a steady layer of dust that would limit our visibility all night long. Yet here we were, the first of nine aircraft consisting of three different airframes and two countries, taxiing out to line-up for another mission in the mountainous valleys in support of a multinational ground force for what would be another successful deliberate operation deep in the mountains of the Uruzgan Province. What made us successful throughout Operation Enduring Freedom VII, despite the complexities we faced, was our management of composite risk.

Task Force Knighthawk was composed of a group of aviators and support personnel that had never worked together before. Our attack troop consisted of Tennessee and Idaho National Guard pilots, our heavy lift company consisted of Army Reserve pilots from four different states and our active duty Black Hawk company had never flown with the aforementioned airframes before our arrival in Kandahar. Also under our tactical control were U.S. Air Force HH-60Gs and Australian CH-47Ds.

Despite having different mission essential task lists that had not been approved by the TF commander, as well as different training standards and levels of proficiency, we were brought together to continue the fight on terrorism in Afghanistan with our transfer of authority less than two weeks away. To add to the complexity, the ground forces we were supporting consisted of U.S. Special Operations Forces (SOF) and conventional forces, as well as French, Canadian, British, Dutch, Danish, Czechoslovakian and Afghan soldiers. Each ground force had different tactics, techniques and procedures; capabilities; and understanding of proper utilization of aviation assets. These were obstacles, complicating a theatre of operation already riddled with tactical and accidental risks.

Beyond the better-known risks such as rocket-propelled grenades and improvised explosive devices, the most dangerous tactical risk is the enemy itself. We are in a constant race with the enemy to counter tactics, and one way to stay one step ahead is to conduct red-teaming. The Taliban and al Qaeda are not intellectuals, but neither are they unintelligent. Simple things such as always assuming you are being watched and adopting a frequency of changing tactics and then adjusting that frequency must not be overlooked.

Despite the presence of a determined enemy on the battlefield, it is the environment and its countless challenges that represent the highest threat to aircrews. High altitudes, restrictive terrain, high temperatures and lack of visual contrast are among the challenges that test an aircrew's ability to conduct missions on a daily basis. One-wheel and pinnacle landings are common, and just about every landing is a dust landing.

Our cornerstone for success was proper Composite Risk Management. Through leadership and an understanding of our abilities, as well as the enemy's, we were able to mitigate both tactical and accidental risks to the lowest level. One of the most effective measures taken was keeping low-risk approval authority at the TF commander level for the first 90 days. This forced interaction between the risk approval authority and the newly formed mission pilots. It allowed the TF commander to meet the pilots, convey his guidance directly and ensure missions were carried out deliberately, effectively and efficiently.

Another key to risk mitigation was training, so every opportunity was utilized. During periods of good illumination, all missions were conducted under night vision goggles to build proficiency among aircrew members. We forced the ground force commander to plan resupply and other missions at night to build proficiency for both aircrew members and ground units. We conducted close combat attack training with all coalition forces to ensure proper understanding of utilization of our attack assets. Pilots practiced pinnacle and dust landings to hone their skills and make those maneuvers almost second nature. Remember, you're in a combat zone and oftentimes you conduct training at the end of a mission. You must maximize the duty day while pushing controlled training events to build your bench. Don't count on getting dedicated training days.

Units must also advise the ground force of slope impacts and hazards. We can't allow a ground force member to get hit by a main rotor because we failed to do the proper analysis and ensure personnel remained on the ground and in the prone position until after the aircraft departed. Ensuring the ground force understands air-ground integration is key; this is not limited to attack assets. You must give information, ask for read-backs and then confirm collective understanding. Without consistent feedback to and from the ground force, the mission is doomed.

Air mission commanders and mission briefers must be trained by the TF commander. AMCs must be taught how to think. A simple "if, and, then" methodology is a technique: If you know the enemy and you understand the friendly unit's disposition, then you can make a deliberate decision. Also, while it is important to allow the AMC some tactical initiative, in general, it is important to stick to the mission. For example, if the mission is to conduct a resupply and the flight gets engaged en route, suppress then bypass. Don't allow yourself to get into a sustained firefight.

Extensive scenario-based rules of engagement classes also improve responsiveness and ultimately save lives. Crewmembers must thoroughly understand the ROE. If attacked, door gunners, in accordance with the ROE, must engage. ROE training must be continuous and incorporate lessons learned. In one instance, we had a crewmember not wanting to return fire because there were civilians nearby. However, during the debrief, the crew noted an open area across from the enemy and the civilians. We must train our crewmembers to lay down suppressive fire, in this case, in the open field. In most instances, that will stop the incoming fire.

The integration of combined arms could be the difference from an aircraft going down or not. If we do our job right, we should let combined arms assets take out enemy positions. If you can kill the enemy with something else without exposing yourself, do it. Also, you must determine and use the right aircraft, capabilities and munitions for the mission. The CH-47 is a big target, and the enemy knows the Information Operations (IO) effects of shooting one down.

Enforcing the basics should be a matter of routine. Do not allow hovering flight unless preparing to land. Airspeeds must be maintained at 60 knots indicated airspeed or greater or you get into power management while becoming extremely vulnerable to enemy fire, an unfortunate convergence of an elevated tactical and accidental risk profile. Additionally, variations in speed, offsetting terrain and changing the flight path and formation keep the enemy guessing. By not following linear features such as roads or riverbeds and avoiding flights over towns and villages, you mitigate risk.

An important part of proper preparation lies with the staff. The effort put forth by the staff ensures aircrews are equipped properly to conduct the mission safely. Teamwork

between air and ground assets is crucial. The mission, regardless of our day-to-day role, is to pursue and destroy the enemy. The key is to analyze the mission and determine the best asset to execute the mission whether it is aircraft, ground forces or both. In this manner, we matched the proper capabilities with mission requirements.

Air briefs were crucial in aligning the assets into one scheme of maneuver. The air scheme of maneuver, as well as the ground scheme of maneuver, was briefed using common graphics. This allowed for a greater understanding of the mission, situational awareness and airspace deconfliction. In turn, these measures served as fratricide prevention and increased our ability to engage the enemy. Finally, a thorough rehearsal helped to bring all the training and preparation together. Walking through the mission using TOPSCENE and different map scales and discussing actions on the objective allows all aircrew members and ground force commanders to visualize, describe and direct actions on the objective in order to gain and maintain contact with the enemy.

Above all, we had to understand not only our strengths and weakness, but also those of the enemy. In order to defeat the enemy, we had to remain unpredictable. We altered our routes, used different tactics and changed aircraft packages whenever we could. Aviators learned to vary their patterns and altitudes and to use terrain and environmental factors to enhance their cover. We utilized jump FARPs and the FATCOW in order to change our capabilities, extend our force projection and to demonstrate to the ACM we were not limited to the well-established FARPs. We kept aircrews informed by producing and publishing daily intelligence summaries and operational summaries for all enemy and friendly activities. We also briefed the information at quick-reaction forces briefs, all mission air briefs and at twice-daily shift change briefs to ensure proper dissemination of information to all Soldiers within the TF.

Despite the complexities of war and the further obstacles created by fighting alongside a multinational force, the treacherous terrain and weather and the aggressive and illusive enemy, TF Knighthawk was able to conduct a successful deployment. Proper use of CRM allowed us to support the ground units in combat, combat service and combat service support missions throughout southern Afghanistan. Own the Edge!